AMENDMENTS TO THE CLAIMS

Please cancel claim 13, and amend claims 17 and 21. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

What is claimed is:

1. (Original) A disk for a hard disk drive having a head including a read element and a write element, the read element and the write element having a position offset, comprising:

a disk having a plurality of tracks, each track having a centerline, one of said tracks having a servo field and a calibration field with a calibration field centerline that is offset from the track centerline, said calibration field includes a single calibration burst providing a burst profile with a peak value, that is used to generate a position offset signal, said calibration burst being written by said head, a second one of said tracks having a servo field and a calibration storage field with a calibration storage field centerline that is centered along the track centerline, wherein information representing the position offset is stored in the calibration storage field.

2. (Original) The disk as recited in claim 1, wherein said position offset signal has a position offset signal amplitude that is stored in said calibration storage field.

3. (Original) The disk as recited in claim 1, wherein said track includes a data field, said calibration field being located in said data field.

4.   (Original)   The disk as recited in claim 1, wherein said servo field of said one of said tracks and said servo field of said second one of said tracks each contains a set of servo bits including an A bit and a B bit that have a common boundary located at the track centerline.

5.   (Original) A hard disk drive, comprising:

a housing;

an actuator arm mounted to said housing;

a head that is mounted to said actuator arm, said head having a write element and a read element, the read element and the write element having a position offset;

a spin motor mounted to said housing; and

a disk attached to said spin motor, said disk having a plurality of tracks that each have a centerline, one of said tracks having a servo field and a calibration field with a calibration field centerline that is offset from the track centerline, said calibration field includes a single calibration burst providing a burse profile with a peak value, that is used to generate a position offset signal, said calibration burst being written by said head, a second one of said tracks having a servo field and a calibration storage field with a calibration storage field center line that is centered along the track centerline, wherein information representing the position offset is stored in the calibration storage field.

6.   (Original) The hard disk drive as recited in claim 5, wherein said position offset signal has a position offset signal amplitude that is stored in said calibration storage field.

7.   (Original) The hard disk drive as recited in claim 5, wherein said track includes a data field, said calibration field being located in said data field.

8.   (Original) The hard disk drive as recited in claim 5, wherein said servo filed of said one of said tracks and said servo field of said second one of said tracks each contains a set of servo bit including an A bit and a B bit that have a common boundary located at the track centerline.

9.   (Original) A method for calibrating and storing information representing the offset between a read element and a write element of a head in a hard disk drive, comprising the steps of:

a)   providing a disk having a plurality of tracks each have a centerline, a first one of said tracks having a servo field and a single calibration burst providing a burst profile with a peak value, said calibration burst having a calibration burst centerline that is offset from the track centerline, a second one of said tracks having a servo field and a calibration storage field with a calibration storage field centerline that is centered along the track centerline;

b)   measuring a profile of the single calibration burst;

c)   generating a position offset signal corresponding to the sensed single

        calibration burst, said position offset signal having an offset amplitude; and

d)   storing said position offset signal amplitude in the calibration storage field.

10. (Original) The method of claim 9 further comprising the steps of:

e) aligning said read element with the calibration storage field centerline; and

f) reading the position offset signal amplitude located on the calibration storage field.

11. (Original) The method as recited in claim 9, wherein step b) comprises the steps of:

b1) aligning a read element over a first position of the track that -50% from the track centerline;

b2) sensing the magnitude of the calibration burst at the first position;

b3) aligning the read element over a plurality of positions of the track that is between -50% from the track center line and +50% from the track centerline;

b4) sensing the magnitude of the calibration burst at the plurality of positions; and

b5) storing the magnitudes of the calibration burst corresponding to the first position and the plurality of positions as the provide of the calibration burst.

12. (Original) The method as recited in claim 9, further comprising the steps of:

g) aligning the read element over the track centerline; and

h) moving the read element in accordance to the position offset signal amplitude stored in the memory device.

13.   (Cancelled)

14.   Cancelled

15.   Cancelled

16.   Cancelled

17.   (Currently Amended)   A hard disk drive, comprising:

a spin motor;

an actuator arm;

a head that is coupled to said actuator arm, said head containing a read element and

a write element;

a disk that is attached to said spin motor, said disk having a plurality of tracks each

having a respective track centerline, said plurality of tracks including a dedicated track,

said dedicated track having stored thereon one or more system parameters in alignment

with said track centerline of said dedicated track; and,

a servo controller configured to initially move said head toread said dedicated track

first before any other ones of said plurality of tracks upon powering up of said hard disk

drive, and to read said system parameters while said read element is centered along said

track centerline of said dedicated track.

18.   Cancelled

19.   Cancelled

20.   Cancelled

21.   (Currently Amended)   A method for reading~~writing~~ system parameters ~~onto a disk~~ of a hard disk drive having a head, which contains a read element and a write element, said method, comprising:

powering up the disk drive;

initially aligning said write element of said head with a centerline of a dedicated track of said disk that contains at least one system parameter~~, said dedicated track being intended to be read first during powering up of said hard disk drive~~; and,

reading~~writing~~ said system parameters on said dedicated track ~~so that said system parameters are aligned with the centerline of said dedicated track~~.

22.   Cancelled

23.   Cancelled

24.   Cancelled

25.   Cancelled

26.   Cancelled

27.   Cancelled

28.   Cancelled

29.   Cancelled

30.   Cancelled

31.   Cancelled

32. (Previously Presented) The disk for a hard disk drive according to claim 13, wherein:

said system parameter comprises a position offset information corresponding to at least one of said plurality of tracks other than said dedicated track, said position offset information representing a distance between respective centers of said write element and said read element with respect to a direction of travel while said head travels along said at least one of said plurality of tracks.

33. (Previously Presented) The hard disk drive according to claim 17, wherein:

said system parameter comprises a position offset information corresponding to at least one of said plurality of tracks other than said dedicated track, said position offset information representing a distance between respective centers of said write element and said read element with respect to a direction of travel while said head travels along said at least one of said plurality of tracks.

34. (Previously Presented) The method for writing system parameters according to claim 21, wherein:

said system parameter comprises a position offset information corresponding to at least one data track different from said dedicated track, said position offset information representing a distance between respective centers of said write element and said read element with respect to a direction of travel while said head travels along said at least one of data track.

35.   (Previously Presented)   A method of operating a hard disk drive having a head, which contains a read element and a write element, and a disk containing a plurality of tracks, said method comprising:

aligning, upon power up of said hard disk drive, said read element of said head with a centerline of a dedicated track of said disk; and,

reading system parameters from said dedicated track while said read element is aligned with said centerline of said dedicated track before reading any other ones of said plurality of tracks.

36.   (Previously Presented)   The method of operating a hard disk drive in accordance with claim 35, wherein:

said system parameter comprises a position offset information corresponding to at least one of said plurality of tracks other than said dedicated track, said position offset information representing a distance between respective centers of said write element and said read element with respect to a direction of travel while said head travels along said at least one of said plurality of tracks.